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## Costa Rica

# **Agricultural Biotechnology Annual**

## Biotechnology and other new production technologies report

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### **Report Highlights:**

There have been no significant policy or regulatory changes in the agricultural biotechnology sector in Costa Rica during the last year. However, Costa Rica is participating in the Central American Initiative on Biotechnology and Bio-safety, a broad based initiative which among its goals intends to compare and analyze the regulatory systems for GMOs in the Central American region.

### **Section I. Executive Summary:**

Transgenic seed varieties have been grown in Costa Rica for multiplication purposes since 1992, with all seeds being exported to the country of origin. Costa Rica has implemented legislation to regulate the import and cultivation of biotech crops. This legislation includes a labeling requirement for genetically modified organisms in agriculture, but there is currently no requirement that foods containing the products of biotechnology be labeled.

Beginning in 2004, environmental groups strengthened their campaign against the planting of transgenic varieties in Costa Rica. On September 23, a coalition of these groups submitted to the government a petition to impose a moratorium on the planting of transgenic varieties in Costa Rica, citing the precautionary principle with respect to both the environmental impact and the human health impact of biotechnology. On October 4, 2004, a Presidential decree was published modifying the composition of the Commission on Biosecurity, which reviews all requests for approval of new biotech varieties for planting or propagation. The Commission now has two members from environmental groups and an additional member from the Environment Ministry.

Despite concerns over the environmental impact of transgenics in 2004, the area planted with transgenics has grown since then, while anti-biotechnology media events have received only moderate press in Costa Rica.

Costa Rica signed the Cartagena Protocol on Biosafety in May 2000. However, the Protocol was not ratified by the Legislative Assembly until July 17<sup>th</sup>, 2006. It was published in the Official Diary, "La Gaceta", on November 27<sup>th</sup>, 2006, thus becoming law. Costa Rica is now working on the national regulatory framework necessary for the implementation of the Protocol. The Ministry of Agriculture (MAG) has recently taken steps to reach agreements with importers and grain users in order to comply with the protocol. As part of that effort, the MAG is working on a draft protocol that would regulate imports from the United States of grains and products derived from biotechnology. The draft protocol will be submitted to USDA/Washington for comments shortly. Up to this point, however, there have been no changes to the regulations for the importation of grains from the United States. However, according to government sources, work on a decree that would contain regulations for the importation of products destined for direct human or animal consumption or for processing, which are the product of modern biotechnology, has not advanced up to this point because of coordination hurdles among the different ministries involved.

### **Section II. Plant Biotechnology Trade and Production:**

Costa Rica produces genetically modified cotton and soybean seed entirely for export to the country of origin. The seeds do not stay in the country for local consumption. Currently, about 1,600 hectares of cotton and soybeans are planted for the purpose of multiplication of planting seeds for export to the United States.

The events approved for planting are Roundup Ready, Roundup Ready Flex, Bollgard, Bollgard II, WideStrike, Cry 1F, Bomoxinil, Liberty Link, Vip 3A and some combinations of the previous ones, for cotton. For soybeans, only Roundup Ready is planted. The GOCR has not received any requests to date for approval to plant transgenic varieties for human or animal food consumption in Costa Rica. According to the companies involved in this business, the procedures to obtain permission from the Costa Rican government to plant genetically modified varieties are straightforward and do not represent an obstacle to production. Companies involved in this business increase or reduce their area planted based on the expected demand for their products in the United States.

Costa Rican researchers are working on the development of genetically modified rice (resistance to virus and herbicides), bananas (resistance to black Sigatoka), and more recently, pineapples (higher content of antioxidants). The development of these products is at the field trial stage. According to sources familiar with the research none of these projects are expected to come to market during the next year.

Costa Rica imports genetically modified corn and soybeans from the United States for animal feed production, and a small volume of cotton for processing. Imports of genetically modified organisms are limited to those indicated above from the United States.

#### **Section III. Plant Biotechnology Policy:**

In 1990, Costa Rica created the National Technical Biosafety Commission (NTBC), which is attached to the Ministry of

Agriculture by law (Animal and Plant Health Protection Law 7664 of April 1997, http://www.protecnet.go.cr/sfe/leyesydecretos/MAGLaw7664.pdf). The law confers upon the NTBC power to regulate imports, exports, research, testing, movement, propagation, industrial production, marketing and use of transgenic and other genetically modified organisms for agricultural use.

The Commission had operated as a strictly technical body for years, however on October 4, 2004, under pressure from groups opposed to biotechnology, then President Abel Pacheco modified its composition resulting in the following membership: one representative of the Science and Technology Ministry, two representatives from the Ministry of Agriculture, two representatives from the Ministry of the Environment, one representative from the National Seeds Office, two representatives from the National Academy of Sciences, and one representative from the Federation for Environmental Conservation.

At this time there is no specific legislation requiring approval of products of biotechnology for food consumption, feed or processing. Imports of U.S. grains and soybeans for animal feed production enter Costa Rica under procedures identical to the importation of any other agricultural product. However, legislation to regulate "confined use, release into the environment, research, marketing, promotion, multiplication, transportation, destruction, imports, exports and transit of living modified organisms and their by-products" is under consideration by the GOCR. Government sources have indicated that work is still necessary for different ministries to agree on a final draft and no indication of a timeframe for the project to be sent to the Legislative Assembly has been provided.

The country allows field tests of biotechnology crops, following appropriate risk analysis for each particular case. Cases that present stacked events (plants that combine two, or more already approved traits, such as herbicide and insect tolerance) need to undergo the same risk evaluation process as the individual events.

Regarding the coexistence of biotechnology and non-biotechnology crops (including organic agriculture), Executive Decree 29782 – MAG of September 18, 2000 (Organic Production Regulation), indicates in Chapter III, Article 24: "Genetically Modified Organisms or those obtained through genetic engineering and the products derived from such organisms, are not compatible with the principles of organic production (understood as production, processing, manufacture or marketing), and their use in organic agriculture is not allowed". The link to the decree is the following: <a href="http://www.protecnet.go.cr/SFE/organica1/formularios/Decreto%20Ejecutivo%20No%20%20%2029782%20M.pdf">http://www.protecnet.go.cr/SFE/organica1/formularios/Decreto%20Ejecutivo%20No%20%20%2029782%20M.pdf</a>

Costa Rica has legislation in effect to promote the production of Organic Products. Article 24 of the legislation indicates the following: "any person who plants transgenic products, will have to obtain permission from the Ministry of Agriculture, without which, the person will not be allowed to initiate the activity. The permit will be granted as long as there is a previous study proving that there are no organic products within a reasonable distance, which may be affected by wind or proximity. The procedure to grant the permit will include consultations by the authorities with the organic producer organizations present in the area."

There is no law regarding the use of labels such as "biotech free", "non-biotech", "gmo-free" or "non-gmo" right now. Anti-biotech as well as some consumer protection groups are pushing for mandatory labeling of food products derived from modern biotechnology. However, labeling is required to introduce and/or trade plant products or other genetically modified organisms (GMOs) for use in agriculture in Costa Rica. In this case the product must be identified as such on a label where the consumer can identify its characteristics. To date, this requirement has been applied only to labeling of planting seeds.

Recent media events in Costa Rica have shifted focus from an emphasis on the environmental impact of biotechnology to the results of environmentalists' sampling of food products, which purportedly revealed transgenics in the food supply. Environmentalists have called for legislation to ban the import of transgenic grains, and to establish a labeling system for transgenic foods. Costa Rica imports in excess of \$300 million in commodities that may contain transgenic ingredients per year. Processed food imports, many of which contain ingredients derived from biotech commodities, are growing.

There are no biotechnology trade barriers that affect U.S. exports at this time. Costa Rica is an importer of soybeans and corn (primarily yellow corn for animal feed production). Imports of processed products that may contain products of biotechnology are also an important segment of total agricultural products imported from the United States.

#### Section IV. Plant Biotechnology Marketing Issues:

Costa Rica is an importer of corn and soybeans from the United States. There seems to be very little if any concern regarding the process from which these products are derived, among users (primarily animal feed producers) or among consumers in the country. The anti-biotech campaign developed since 2004 by different groups under the Federation for Environmental Conservation and the Biodiversity Conservation Network, has not had a significant negative impact among consumers. In fact, as a result of these group's statements (which included at a point a threat to destroy biotech crops), scientists, MAG officials, and the press had the opportunity to express points of view favorable to biotechnology. Nevertheless, the general public has limited knowledge of the topic and can be easily manipulated by these groups, especially in rural areas, where the educational level of the population is lower.

#### Section V. Plant Biotechnology Capacity Building and Outreach:

Outreach to Costa Rican officials, scientists and other stakeholders has been ongoing since 2005 through various programs and initiatives. The U.S. Government funded the visit of a biotechnology expert from University of California, Davis, in June 2005. The expert met with government officials from the Ministries of Agriculture, Health, Economy and Environment, as well as with scientists and members of the NTBC, and discussed different issues related to biotechnology, including the costs of over-regulation. He also made a public presentation at the University of Costa Rica, which was well attended by students, academics, and public officials. Interviews were provided to written media and to a television station, and press coverage was generally science based and informative. After the visit, an article which expressed many of the points presented by the speaker in support of biotechnology, was published by a well-known local scientist in a leading newspaper.

Also, in November 2005, a University of Georgia Professor and biotechnology expert, visited Costa Rica to meet with GOCR officials from the Ministries of Health and Economy as well as with Legislative Assembly staff. The expert was also interviewed by the Director of "Radio Monumental", a local radio station.

Another capacity building and outreach activity included the participation of two U.S. professors in a two day Seminar at the University of Costa Rica in February, 2006. The participation of the two speakers was partially funded by the U.S. Government. The experts also had private meetings with local regulators during their visit.

Post organized the visit of an Argentinean expert on biotechnology in August 2007. Topics of his presentations and meetings included the Cartagena Protocol, problems related to labeling of processed products derived from biotechnology and the U.S.-EU conflict over biotech. Officials from the Ministry of Agriculture, Ministry of Economy, Ministry of Health, and the Ministry of Environment, attended his presentations.

Local authorities have expressed interest in obtaining training/information on the intellectual property aspects of biotechnology.

In 2010, a Costa Rican official from the Ministry of Agriculture participated in biotechnology training under the Cochran Program. Also, in 2011, two Costa Ricans (one from the University of Costa Rica and one from the Center for Biotechnology Research) participated in the Michigan State University Biotechnology Short Course funded by USDA's Cochran Program.

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#### **Section VI. Animal Biotechnology:**

No activity has been reported under other new technologies such as animal cloning or plant nanotechnology.